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EXAMINER

MARIAM, DANIEL G

ART UNIT PAPER NUMBER

2625

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/941,503 | Applicant(s) SHNIBERG ET AL. | |
| | Examiner DANIEL G. MARIAM | Art Unit 2625 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 53-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 53-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 12, 2005 has been entered.

Response to Amendment

2. In response to the Office Action mailed on July 8, 2005 applicants have submitted an amendment filed on October 17, 2005; amending claims 53, 55, 61, 68, and 72; and arguing to traverse the Rejections of pending claims 53-75.

Response to Arguments

3. Applicants' arguments, see pages 7-10 of the remarks, filed October 17, 2005, with respect to the rejection(s) of claim(s) 53-75 under 35 USC 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Oh, et al (Content-based retrieval system for image using human face information).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 53-57, 59-64, and 66-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weston, et al. (6,608,563) in view of Oh, et al. (Content-based retrieval system for image using human face information).

With regard to claim 61, Weston, et al (hereinafter "Weston") discloses a system and method for automated photo capture and retrieval using unique person identifiers or RFID tags that allow automated capturing and arranging of individual or group photo images into an accessible photo/video album and/or interactive storybook (See col. 1, lines 15-19) comprising: a (face) recognition unit to recognize generally all sub-images which are recognizable as (faces) in a group, i.e., photos of persons in various scenes, of still images, i.e., photos. In Weston, a unique person identifier number or unique group identifier number worn by a person/s and are used to match a particular individual/s (which indeed has a face) to any relevant captured photo images which include the individual (See for example, col. 6, lines 18-29; and Figs. 1-2 & 4-5); and an indexer, i.e., image processor, to index each said group of still images according to sub-images, i.e., Watson indexes the photo images according to the unique person identifier number or unique group identifier number (See for example, col. 6, lines 32-35). While Weston generally identifies a person or persons with the aid of a unique person/s identification number worn by the person/s (applicant's disclosure also mentions a similar mechanism, where applicant states: a unique identification indication is worn by a person in a scene, and a face of the person is recognized with the assistance of the identification indication (See for example, paragraph 0042 of the specification)), Weston does not expressly call for the identification of the person's face and indexing according to the faces. However, Oh, et al.

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discloses a content-based image retrieval system using human being faces as high-level features of image contents. The system consists of face detection to locate the human faces within images, face recognition for the similarity measure between a query face and index faces within storage (See the Abstract). Oh, et al. does detect and recognize face images and index them according to the recognized faces (See Fig. 4-6).

Weston and Oh, et al. are combinable because they are from the same field of endeavor, i.e., image retrieval (See for example, the Abstract). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Oh, et al. with Weston, since Weston does identify an individual which indeed includes the face/s of a person/s, and stores, indexes, and retrieves the photo/video images where indexing and retrieval of photos or video images is carried out using a unique person identifier number. The motivation for doing so is if for no other reason than to recognize person/s using their faces and to index them according to the recognized faces (See Figs. 4-6), and to do so would at least improve the indexing of the collection of image information, and thereby narrowing down the index to human faces which will lead to minimization of the time taken during retrieval or indexing of the stored images. Therefore, it would have been obvious to combine Oh, et al. with Weston to obtain the invention as specified in claim 61. Please note the test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F. 2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F. 2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Moreover, in evaluating such references it is proper to take into account not only the specific teachings of these references but also the

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inferences which one skilled in the art would reasonably be expected to draw therefrom. In re Preda, 401 F. 2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

With regard to claim 62, the system according to claim 61 and also comprising an image retriever to retrieve images of an individual person from an index generated by said indexer (See col. 6, line 35 of Weston).

With regard to claim 63, the system according to claim 62 and wherein said index comprises icon means to employ a recognized face as an index icon, i.e., cropped photo or face (See col. 6, line 56 of Weston; and Figs. 1-2; and Fig. 5 of Oh, et al).

With regard to claim 64, the system according to claim 61 and also comprising a receiver to receive image data via the Internet (See for example, col. 2, lines 14-16; and col. 6, lines 65-67 of Weston).

With regard to claim 66, the system according to claim 64 and wherein said receiver is connectable to a digital camera (See for example, Fig. 3 of Oh, et al).

With regard to claim 67, the system according to claim 62 and wherein said image retriever comprises a downloader for downloading at least one image (See col. 6, lines 65-67 of Weston; and Fig. 3 of Oh, et al).

Claims 53, 54, (56 & 57), 59, and 60 are rejected the same as claims 61, 62, 64, 66, and 67 respectively, except claims 53, 54, (56 & 57), 59, and 60 are directed to method claims. Thus, arguments analogous to those presented above for claims 61, 62, 64, 66, and 67 are respectively applicable to claims 53, 54, 56, (57 & 57), 59, and 60.

With regard to claim 55, the method according to claim 53 and comprising using said sub-images as index icons (See col. 6, line 56 of Weston; and Figs. 1-2; and Fig. 5 of Oh, et al).

With regard to claim 72, an image receiver to receive a plurality of photographs of a plurality of persons in a plurality of scenes, wherein not all of the persons appear in all of the Scenes (See for example, Figure 1 of Weston, where an automated photo/video image capture is shown, a plurality of persons are shown in a plurality of scenes, and not all of the persons appear in all of the scenes); and an analyzer, i.e., automated image capturer, image reader or image processor, to analyze said plurality of photographs to detect generally all faces of said persons in each of the scenes (Weston (as modified by Oh, et al discussed above in paragraph 5 is not repeated herein, but is entirely incorporated by reference) does analyze the photo images by using the unique person identifier number or the unique group identifier number so that the person/s or face/s of the persons in each scene are detected and/or identified: See for example, col. 6, lines 18-35) and to group the photographs according at least to the faces of the persons appearing therein, i.e. Weston includes the unique group identifier number so as to define photo images in various groups, and this group identifier is used to match a defined group of individuals to any relevant captured photo images that contain any individual(s) within the defined group (See for example, col. 7, lines 49-52).

With regard to claim 73, the system according to claim 72 and wherein said analyzer also comprises an indexer, i.e., image processor, to index said plurality of photographs at least partially in accordance with the faces of the persons appearing therein (See col. 6, lines 32-34 of Weston).

With regard claim 74, the system according to claim 72 and wherein said photographs include unique identification indications, i.e., unique person identifier number and unique group identifier number, on said plurality of persons (See for example, col. 6, line 21 and

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line 24 of Weston) and said analyzer comprises: a face recognizer to recognize the faces of the persons appearing in said photographs, an indication recognizer to recognize said unique identification indications, and a correlator, i.e., match, to correlate said faces with said unique identification indications (See col. 6, lines 18-35 of Weston; and Fig.4 of Oh, et al).

With regard to claim the system according to claim 72 and wherein said analyzer comprises an image indication, i.e., unique identifier, assisted face recognizer (See for example, col. 3, lines 38-48 of Weston).

Claims 68, 69, 70, and 71 are rejected the same as claims 72, 73, 74, and 75 respectively, except claims 68, 69, 70, and 71 are directed to method claims. Thus, arguments analogous to those presented above for claims 72, 73, 74, and 75 are respectively applicable to claims 68, 69, 70, and 71.

6. Claims 58 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weston in view of Oh, et al. as applied to claims 53-57, 59-64, and 66-75 above, and further in view of Squilla, et al. (6,690,843).

7. With regard to claim 65, Weston (as modified by Oh, et al.) discloses all of the claimed subject matter as already addressed above in paragraph 5, and is entirely incorporated herein by reference. Weston (as modified by Oh, et al.) does not expressly call for the receiver being connected to a scanner scanning images from film. However, this feature is extremely well known as evidenced by Squilla, et al. (See item 20, Figure 2). Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Squilla into the system of Weston (as modified by Oh, et al.) if for no other reason to provide a film

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containing the photo images, and to create a digital image of the photo images by scanning the film using a scanner (See col. 6, lines 49-55).

Claim 58 is rejected the same as claim 65 except claim 58 is a method claim. Thus, argument similar to that presented above for claim 65 is applicable to claim 58.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Number: 6,698,653; and a publication to: Balasuriya (Frontal View Human Face Detection and Recognition).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH M. MEHTA can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL G MARIAM
Primary Examiner
Art Unit 2625

February 9, 2006